

Docket No. SA-537

Exhibit No. 2-N

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Operations Group Chairman Factual Report

Training Slides on Stall Protection and Autothrottle Modes

(3 Pages)

Attachment 13

To Operations Group Factual Report

DCA13MA120

Training Slides on Stall Protection and
Autothrottle Modes

The autothrottle activates:

- for climb – activates in THR mode; the thrust limit is CLB thrust
- for descent – activates in THR mode, followed by HOLD if the thrust levers reach idle.

Descent : A/T / / PITCH FMA 변화

THR / / FLCH SPD

→ HOLD / /

(When Altitude captured)

SPD / / ALT

THRUST Modes (Active)

Displayed (green) –

THR REF

THR

HOLD

IDLE

SPD

L-SPD

R-SPD

* FMA 변화 *

(CRZ:) **SPD** / `` / **VNAV PTH**

(CLM:) **THR REF** / `` / **VNAV SPD**

(MCP ALT) **SPD** / `` / **VNAV ALT**

(FMC ALT/SID) **SPD** / `` / **VNAV PTH**

(400ft bs) **THR REF** / `` / **VNAV SPD**

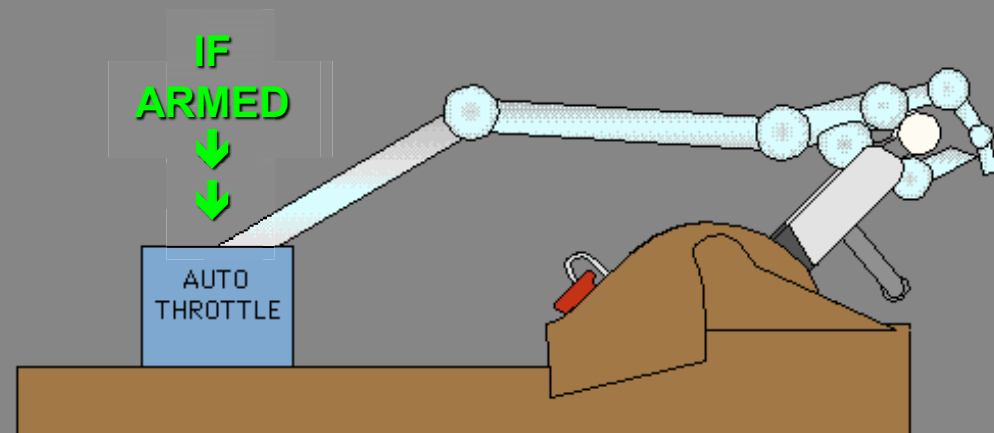
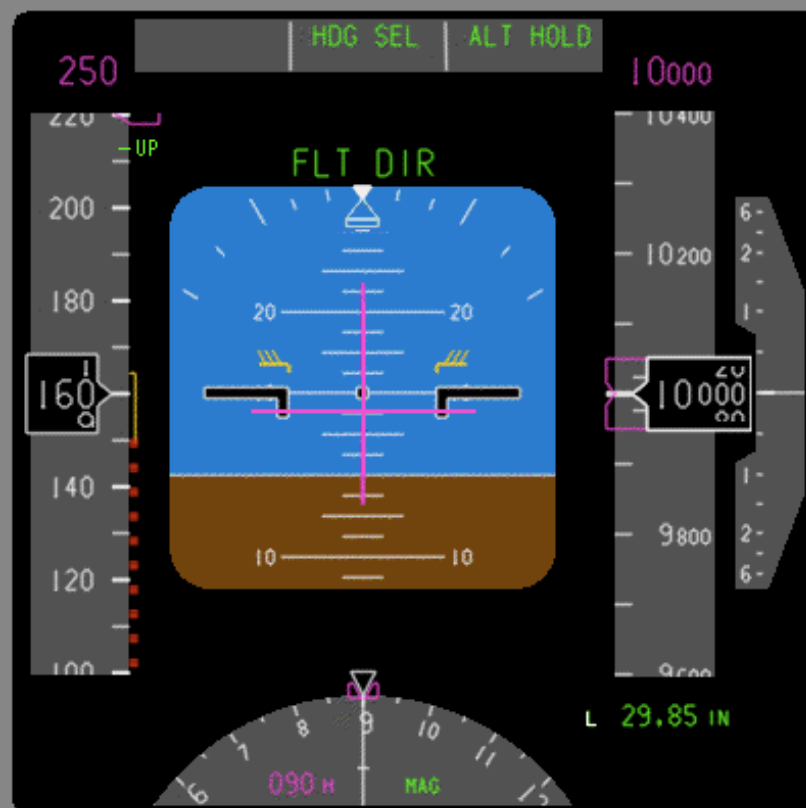
(50ft RA:) `` / **LNAV** / ``

(80kts:) **HOLD** / `` / ``

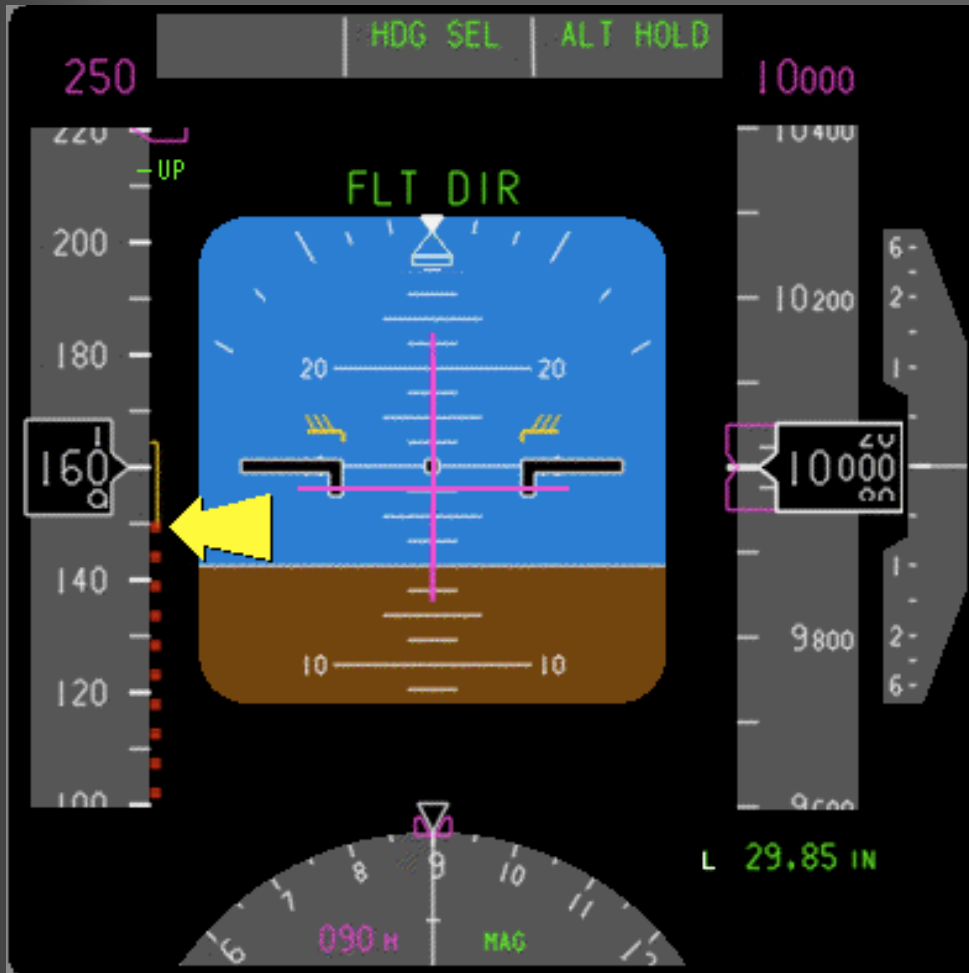
(TOGA:) **THR REF** / **TOGA** / **TOGA**

Stall Protection Feature

- Reduces the possibility of reaching stick shaker
- No trim below minimum maneuvering speed
- Slow speed requires continuous back pressure
- Autothrottles engage automatically (IF ARMED)



STALL PROTECTION



Stall Warning

- Stick shaker
- No aural warning

**STALL WARNING
(STICK SHAKER ONLY)**